Water Resources Advisory Committee

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August 7, 2013

Honorable Bruce Gibson
Acting Chairperson, Board of Supervisors
County of San Luis Obispo
1050 Monterey Street
San Luis Obispo, CA 93408

Subject: WRAC Comments on the Water Resources Components of the Laetitia Agricultural Cluster Development Revised Recirculated Draft Environmental Impact Report

Dear Acting Chairperson Gibson:

The Revised Recirculated Draft Environmental Impact Report (RRDEIR) for the Laetitia Agricultural Cluster Subdivision is complete and available for public review and comment. RRDEIR comments are due by August 26, 2013 (45-day public comment period).

The RRDEIR consists of several revised sections of the 2008 Draft Environmental Impact Report (DEIR), including water resources, biological resources, and alternatives analysis, and along with the 2008 DEIR, addresses the environmental impacts that may be associated with an Agricultural Cluster subdivision of twenty-one parcels (approximately 1,910 acres) into 106 lots, including 102 residential lots for the future construction of 102 single-family homes and four open space lots.

On May 2, 2012, the Water Resources Advisory Committee (WRAC) formed an ad hoc subcommittee whose purpose was to review and comment on the water resources components of the subject RRDEIR Subcommittee members included Member Garfinkel (District 2), Alternate Member David Chipping (Environmental At-Large), Alternate Member Steph Wald (Environmental At-Large), Member Jim Toomey (District 2), Member Vierheilig (Nipomo Community Services District), and Member Brown (City of Arroyo Grande). Member Chipping served as chair of the ad hoc subcommittee. The subcommittee met on July 18, 2013, and subsequently developed a subcommittee report (attached).

On August 7, 2013, the WRAC reviewed and approved the ad hoc subcommittee's report and voted (17-0-2 abstentions) to submit the attached comments to your Honorable Board for further consideration.

Given the seriousness of the issues and lack of information, unless corrected, we do not believe you will have a certifiable EIR.

Respectfully,

SUE LUFT
Chairperson, Water Resources Advisory Committee

Purpose of the Committee:

To advise the County Board of Supervisors concerning all policy decisions relating to the water resources of the SLO County Flood Control & Water Conservation District. To recommend to the Board specific water resource programs. To recommend methods of financing water resource programs.

Excerpts from WRAC Bylaws dated 8/28/2012

cc: SLO County Board of Supervisors
SLO County Planning Commission
Brian Pedrotti, County Department of Planning and Building

Attachments[1]: Subcommittee Report on Water Resources Components of the Laetitia Agricultural Cluster Subdivision RRDEIR

[1] Related correspondence submitted to the WRAC can be found at:
http://www.slocountywater.org/site/Water%20Resources/Advisory%20Committee/Submittals/

WRAC Subcommittee Report on Laetitia Agricultural Cluster Subdivision Revised Recirculated Draft Environmental Impact Report (RRDEIR)

PREFACE

The Water Resources Advisory Committee has criteria under which comments are submitted in the CEQA process. These are:

1- Does the project introduce a change in water policy (however small) that would affect the county elsewhere?

and/or

2- Is the project of such a scale that it would have a regional impact on the water supply?

Commentary on this proposed project concerns major policy issues regarding water management, criteria for judging long-term sustainability, stream and wildlife habitat alteration, the quality of data that is acceptable, and the degree to which an individual project can appropriate more water than originates on the project site. The proposed project introduces large numbers of houses into undeveloped or agricultural lands.

The scale of the proposed project is such that the original entity (Laetitia) and the new entity (a proposed Mutual Water Company serving a large number of users) might need to resolve issues concerning the use of a common water source, and that the proposed project might impact recharge into the water supplies of the 'Northern Cities Management Area (NCMA)', specifically Los Berros, Arroyo Grande and Oceano.

The WRAC Subcommittee met to review the Laetitia Agricultural Cluster Subdivision Revised Recirculated Draft Environmental Impact Report on July 18, 2013 at the SLO County Government Center from 1 pm to 3 pm. Subsequent discussions on the issues raised at this meeting were conducted via email leading to this report for consideration by the Water Resources Advisory Committee.

BACKGROUND

The Laetitia project subdivides twenty-one parcels (approx 1,910 acres) out of rural and agricultural lands of the Laetitia Ranch into 102 residential lots and 4 open space lots. In September 2008, the Laetitia DEIR, which listed possible significant, adverse, and unavoidable environmental impacts, was released for public comment. Of the ten impacts to water in the report, each was reduced to ‘less than significant’ with mitigation measures.

A subcommittee was formed to review the Laetitia DEIR. The members visited the project site and submitted their report to WRAC, which subsequently adopted that report on February 4, 2009. At the end of the DEIR public comment period, issues regarding water resources and applicant modifications to the project necessitated the need to re-circulate sections of the DEIR, resulting in a delay of the preparation of a Final EIR.

The revised DEIR (RDEIR) released April 26, 2012 consists of the sections of the DEIR that include water resources, biological resources, and two additional project alternatives. A second WRAC Subcommittee was formed on May 2, 2012 to review the RDEIR. While comments from WRAC were submitted, the comments were later discarded when the RDEIR was withdrawn and the RRDEIR later created to address water and wildlife issues following changes in the project description. WRAC has therefore formed another subcommittee to review and comment on the RRDEIR.

COMMENTS OF THE WRAC SUBCOMMITTEE TO REVIEW THE LATITIA AGRICULTURAL CLUSTER SUBDIVISION RRDEIR

ORGANIZATION OF COMMENTS WITHIN THIS DOCUMENT

General issues are considered under headings, but where the issue appears in different sections of the RRDEIR they will be treated together under the same heading. Page numbers from the RRDEIR will be given where possible at the start of a comment to aid in locating the point of discussion. Major issues are defined by headings that are 'all caps and in bold font'. Subsidiary issues in 'all caps'. Direct quotations from other documents are in italics.

COMMENTS REGARDING APPLICATION OF CEQA GUIDELINES SECTION 15988.5 (I-1)

The RRDEIR states: "*the Final EIR will include responses to written comments on the remainder of the Draft EIR (2008), and responses to comments on this recirculated version of the Introduction, Biological Resources, Water Resources, and Alternatives Analysis sections of the Draft EIR (2013)*".

Although WRAC made comments on the original document concerning the covered issues, these will apparently not be addressed in the FEIR as they are not part of the "*remainder*". The WRAC subcommittee wants all comments addressed, including those made on earlier issuances of the DEIR.

COMMENT CONCERNING DUDE RANCH AND EQUESTRIAN CENTER

In the RRDEIR the proposed project has eliminated the equestrian center. The RRDEIR also addresses a future 'dude ranch' and states "*the dude ranch is included in this EIR as a future development proposal*".

WRAC had submitted the following comment to the RDEIR, which it resubmits to the RRDEIR:

The cumulative impact of a Dude Ranch is missing from the DEIR. The information provided on the Dude Ranch is inadequate to evaluate the cumulative impact on water demand. There is no way to determine if the needs of Dude Ranch will potentially exceed the water supply.

The derivation of the 13-acre feet water need is not described in either the DEIR or RDEIR. The Dude Ranch lists 75 units but does not elaborate on the livestock needs, include the number of staff or list amenities that would increase water demand.

Los Berros Creek has been identified as being impacted by nitrate loading by the Regional Water Quality Control Board. Proposed project agricultural activities including the Dude Ranch would potentially exacerbate the loading. It is recommended that water quality protections be considered in project design to address potential increases in water quality impacts as regards nitrate loading in Los Berros Creek.

The impacts of the Equestrian Center on Los Berros Creek were eliminated when it was removed from the project, but there is question that the creek may be similarly impacted by the Dude Ranch in both water quantity impacts and water quality impacts.

There has not been any change, as on page V.P.-35 the RRDEIR notes that Cleath (2008) had estimated 13 afy for the dude ranch, but that "*it is not included in the current project application*". The WRAC subcommittee believes future uses of groundwater should be considered in a calculation of safe sustainable yields.

COMMENTS CONCERNING ESTIMATIONS OF ANNUAL RAINFALL AND USE IN WATER DEMAND CALCULATIONS

V.P.-3 The WRAC subcommittee agrees with the RRDEIR in assuming an average rainfall of about 17 inches. The amount and timing of rainfall is important in estimating irrigation requirements and expected well production. It is therefore important that irrigation requirements not be measured for a highly atypical year. The RRDEIR states that rainfall "*between July 2009 and March 2011 was 138 percent of average*", and this is supported by Appendix H, p.5 of letter to Scott from Thrupp and Gotberg, 18 April 2012. This letter references data from the Nipomo Mehlschau #38 gauge. For the 2010-2011 water year 28.95 inches were recorded while the average water year precipitation between 1920 and 2012 is 16.75 inches. The Mehlschau 2009-2010 water year yielded 21.84 inches.

COMMENTS CONCERNING IMPACTS TO LOS BERROS CREEK

(1) INCREASED WATER DEMAND IN LOS BERROS CREEK WATERSHED

WRAC comments on the RDEIR stated:

The total water budget for the agricultural and residential uses produces a net increase in water use from 222.3 AFY to 280 AFY that will be reflected in a net reduction in outflow for the Los Berros Creek system. WRAC supports adherence to mitigation WAT/mm 10 (sic) in the project design, with a strong emphasis on the optimization of groundwater recharge to bedrock aquifers and the use of surface impoundment.

V.P.-3 The RRDEIR notes that Los Berros Creek is in the Oceano Hydrologic Subarea and outside of the Santa Maria Groundwater Basin. The WRAC subcommittee notes that Oceano is included in "The Northern Cities Management Area" (NCMA). The Northern Cities were party, along with San Luis Obispo County to the Stipulated Settlement regarding the disposition of water originating in Santa Maria and being exported into San Luis Obispo County. The adjudicated judgment, which incorporated the stipulated settlement and made it binding on all stipulating parties, and the ongoing oversight of the court demonstrate that the signatories are committed to help preserve the water supply. The Settlement states that there will be no new wells in the Northern Cities Management Area, and only the County has the discretionary power to permit new (or replacement) wells outside the boundaries of the incorporated cities.

In a related issue, Oceano CSD in a letter to Nipomo CSD, dated April 24, 2013, state:

For nearly 30 years, Oceano Community Services District has limited pumping from the Santa Maria Groundwater Basin so as to not exceed the basin's safe yield. However, continued growth on the Nipomo Mesa, which currently depends entirely on groundwater from the Santa Maria Groundwater Basin, has taxed the basin and contributed to a deepening groundwater depression underlying the Nipomo area that threatens the entire region

The WRAC subcommittee introduces this issue, which is not discussed in the RRDEIR, as it is clear that every inflow into the Arroyo Grande- Oceano watershed is important and that any diminution in the contribution from Los Berros Creek will be significant. Under the Stipulated Settlement the County has a commitment to help preserve the groundwater basin in the NCMA, which would be impaired if they approved an increase in non-ag water demand in Oceano's primary recharge zone.

(2) V.P.-4 ESTIMATION OF PROJECT IMPACTS ON LOS BERROS CREEK FLOW AND UNDERFLOW

(a) Domestic And Agricultural Well Reallocation In The RRDEIR As Impacts On Flow

The substitution of Wells 10, 11, 12, 13 with Wells 10, 11, 14, 15 for domestic supply is supported by the WRAC subcommittee . While it has been shown that wells 12 and 13 affected Los Berros Creek, it cannot be assumed that lowering water tables due to production of the other wells will not also have an effect on the creek. Los Berros Creek historically behaved as an effluent stream that flowed long into the dry season due to recharge from nearby aquifers. In WRAC's comments on the RDEIR, it was noted, in regard to Well 9:

The fast recovery of Well #9 after heavy rains suggest connectivity to Los Berros Creek. Other bedrock-supplied wells did not show a similar recovery (RDEIR V67) (sic). *The RDEIR also notes that there could be future well interference between Well #9 and domestic production wells, although the well tests show no evidence of this. The RDEIR (V67)* (sic) *notes that replenishment rates for wells in the Monterey Formation are likely to be low, and that well interference with Wells #10 and #11 is a future possibility (V68)* (sic).

and in regard to Wells 5 and 8:

Well #5 and Well #8 appear to have a dependence on Los Berros Creek underflow as both showed fast recovery after rain (RDEIR V67).

Well #8 appears in the RDEIR in the context of hydrographs that indicate strong dependence on Los Berros Creek underflow (RDEIR V67) (sic). *There is no further discussion of Well #8 except the statement that it is an agricultural supply well. Failure to factor in Well #8 impact weakens the assertion that impacts (WAT Impact 7)* (sic) *to Los Berros Creek can be reduced to less than significant (RDEIR V81)* (sic) *as this conclusion has been evaluated on potentially incomplete data.*

Please note that the page and section references in the above quotes are copied from the original document and do not refer to the RRDEIR.

(b) Evidence Of Negative Impacts To Los Berros Creek From Current Operations

V.P.-4 Stream gauge data for Los Berros Creek (Table 1 Appendix H1) shows that the stream flowed year round until 1981, with the exception of 1977, 1979 and 1980. There is reference to the Bartleson Development Plan which states that Los Berros Creek maintained base flow throughout the summer

""*....during the dry season prior to approximately 1981 when groundwater pumping was increased from the fractured tuff aquifers of the Obispo Formation. The stream gauging data also show zero flow prior to 1981 in the creek during the dry season in 1977, 1979, and 1980."*

On the same page:

"*no gauging data for Los Berros Creek are available for the period from 2002 to 2005. Some field records with the County indicate that the creek was dry during that period but no data logs have been found to confirm the creek stage or flow during this period*."

Laetitia increased irrigated acreage tenfold in 1982 (source: Laetitia's web page) at about the time creek flows are sharply diminished. Impacts would be felt as new wells penetrated both the underflow of the stream and bedrock that was providing effluent flow to the creek. There is historical evidence of significant drawdown in the water table at Laetitia. On p. V.P.-41 the RRDEIR states

"*Although there are only a few data points for Wells F&T-1, F&T-2, FVW-1, and FVW-3,*

over periods of several years, the data show a general decline in groundwater elevation at these wells over 30 years"

Appendix H1, figure 18, shows that F&T 1 dropped 40 ft. in a decade, FVW-1 dropped 40 ft. in 20 years, F&T 2 dropped 80 ft. in 10 years, and FVW- 3 about 10 ft. in 10 years. This suggests that an overdraft condition already exists in the area, that the existing production for the vineyard is unsustainable in the long term, damaging to Los Berros Creek ecosystems, and reducing recharge to the Arroyo Grande Subarea aquifers.

The RRDEIR fails to either interpret or establish the history of long term storage changes with either the history of agricultural well water extraction at Laetitia or with the flow history of Los Berros Creek, although much of the data appears to be present in the document and its appendices. The FEIR should examine the thin evidence on water storage changes in terms of future projections of water levels and impacts to Los Berros Creek.

The 1968-2001 flow data is processed as monthly averages in Appendix H1 Figure 5. This does seem to show a significant decrease in January average flow in Los Berros Creek when years 1981-2001 are averaged, compared to the 1966-2001 average which is weighted toward older data. January flow dropped by a third, suggesting a possible deficit in underflow storage has developed through the summer and fall months. This would detract from surface flow until underflow capacity was reached.

(c) Insufficient Or Missing Information Concerning Los Berros Creek Flows

The RRDEIR states that the County has stream gauge data: "*for the period from 1978 to March 2011. However, no gauging data for Los Berros Creek are available for the period from 2002 to 2005*." There is a question as to why 2006-2011 data is not presented along with the analysis of the 1968-2001 data in Appendix H1 Figure 5.

(3) Cumulative Effects Of Well Water Extraction On Steelhead And Red-Legged Frog Habitat Of Los Berros Creek

The National Marine Fisheries Service has designated Los Berros Creek as steelhead Critical Habitat in the Estero Bay Hydrologic Sub-unit 3310 and the Oceano Hydrologic Sub Area 331031. Impact mitigations listed in Chapter 4 of the RRDEIR as Bio/mm-1 through Bio/mm-12, and WAT/mm-1 through WAT/mm-15, say nothing about increasing mean daily flows in the creek.

As steelhead are present in the creek (V.E.-15) the RRDEIR should discuss the serious potential that federal and state agencies may impose a minimum daily flow requirement to conserve the endangered species habitat. A habitat plan could require pumping be reduced or even terminated if shown to be directly or indirectly dewatering the creek.

The RRDEIR fails to relate minimum allowable flows for success of steelhead in Los Berros Creek to the probable impacts of increased well pumping affecting the creek.

Most of what has been said above for steelhead can be repeated for red-legged frog. The possibility of additional water demand for the endangered frog habitat should be

addressed in the FEIR. The RRDEIR discusses mitigation of impacts associated with the red-legged frog habitat, including the preservation of ponds and wetlands especially through the dry summer months. These impacts are discussed only in the context of construction activities and not in terms of a possible prolonged and large-scale dewatering of the area.

COMMENTS CONCERNING RESIDENTIAL SYSTEM LINKAGE TO THE AGRICULTURAL SYSTEM

V.P.-6 The RRDEIR states that the looped water main distribution system for the domestic supply "*will be separate from the agricultural/irrigation water supply and storage system*." The WRAC subcommittee requests further information on the accuracy of this statement, as it is possible that physical connections between domestic and agricultural systems will remain in place but would be unused. Based on the answer to the question, the WRAC subcommittee would like to see information on any foreseeable situation where cross connections would be used. For example, would or could irrigation well water be diverted to domestic use if unexpected production losses were experienced on the domestic side? If the agricultural and domestic water supply was to be controlled by a single entity, would cross-connection be in the interests of all parties? Does California Water Code Section 106 that states that residential use is a higher use than agricultural use come into effect? In addition, water quality data of the irrigation water at any proposed point of interconnection should be presented so that it can be determined whether water quality, after processing by the proposed Mutual Water Company, will meet State Environmental Health & Safety Agency standards.

COMMENTS CONCERNING ESTIMATIONS OF AGRICULTURAL WATER DEMAND

V.P.-6 discusses existing water use estimations in agricultural operations. The RRDEIR uses the 208 af pumped in 2011 as the basis for describing both existing and projected demand (see also Table V.P.-1). The basis of this number, as given by Cleath and Associates, cannot be verified as supportive documentation is not provided, such as well production logs, and is referenced only as an email communication (Appendix H-2, p.2).

The WRAC subcommittee requests that better documentation be provided in defense of this low irrigation application rate. This is especially important as 2011 was a heavy rainfall year (see comments on V.P.-3 above), and thus irrigation would be less than normal.

The subcommittee offers evidence from SLO County records that the use of 2011 irrigation data is misleading. Using the data from the Nipomo Mehlschau #38 site, and using the 2010-2011 water year as the basis for establishing spring and summer water conditions for 2011, the precipitation was 28.95 inches. As the average water year precipitation for the site between 1920 and 2012 is 16.75 inches, it is evident that irrigation amounts would have been much reduced from average requirements. The other two years for which irrigation data is ostensibly available were given as 1994 and 2003,

but the data is not provided or apparently used and the preceding water years 1993-1994 and 2002-2003 yield 13.37 inches and 16.98 inches.

The subcommittee supports the use of irrigation values based on the Master Water Plan, minus allocations for frost protection. The RRDEIR notes the low Master Water Plan value of 0.7 AFY/A would be reduced to 0.45 AFY/A (Appendix H2, p.7) with frost protection removed, as the Master Water Plan assumed 0.25 AFY/A frost protection would be needed in coastal areas (see also Appendix D, Master Water Plan). The 0.45 AFY/A from Appendix H2 and the projected vineyard use of 291.2 AFY gets no further mention in the DEIR, even though the Appendix states :

"*Because available records of irrigation rates for the Laetitia vineyards are apparently limited to three years (1994, 2003, and 2011) and rainfall in 1994 and 2011 was well above the estimated average for the Project Area (Geosyntec, 2010), we have used a reasonable conservative approach to calculate baseline water demand of the Laetitia vineyards based on the low water demand value of 0.7 AF/Y per acre for WPA 7 in Table A1 and subtraction of the assumed 0.25 AF/Y per acre for frost protection, which is included in the 0.7 value: 0.7 – 0.25 = 0.45 AF/Y per acre".*

The subcommittee questions using Master Water Plan vineyard water numbers derived from Water Planning Area WPA 2 for Cambria and WPA 3 (Cayucos) rather than those for Laetitia's geographic location in WPA 7 (South Coast). The evapotranspiration rates for these WPA's are 38.5, 38.2 and 52.1 respectively. In the letter from Geosyntec to Shawna Scott of 4/18/12, the consultants state on p.4:

"Thus, although the reported vineyard water demand values of 0.26 to 0.34 AF/Y per acre for the Laetitia vineyards are substantially lower than predicted for WPA 7 based on calculated water demands (ESA, 2010) presented in Appendix D of the County MWP (Corollo, 2012), the Laetitia vineyard reported values are similar to predicted values for other WPAs in the County if indeed no water is used for frost protection".

The WPAs were developed because there are significant differences in such factors as evapotranspiration rates, so the application of data to WPA 7 from WPAs 2 & 3 is not appropriate.

The WRAC subcommittee also questions the lack of availability of irrigation data, which would usually be an important factor in wine production, and the selection of high rainfall years in providing the limited information available.

The subcommittee notes an inconsistency between V.P.-5, which states "*Average annual production from the onsite irrigation wells was 161 afy between 1999 and 2003*.", and the statement that records were only available for the years 1994, 2003 and 2008. If an average annual production was calculated, where is the data for 1999-2002?

As the subcommittee was meeting, the County provided a copy of a letter from Cleath and Harris (CHG) to John Janneck on July 18, 2013, which was copied to San Luis Obispo County. They question a linkage between drought and increased irrigation use and defend figures used in the DEIR and state:

"*CHG has documented vineyard water use at Laetitia over several years, including a drought year, where water use was less than the current rate (1994; 13.37 inches of precipitation at County gage #38; 0.25 acre-feet per acre of vineyard). Historical average annual water use in the vineyard has ranged from 0.25 to 0.34 acre-feet per acre, which is much more realistic for future Laetitia water demand than the RRDEIR figures*."

The differing opinions of experts regarding irrigation demand and rainfall should not be cause to simply accept the numbers provided in the RRDEIR. As vineyard water demand is a critical factor in groundwater sustainability, more supportive data is needed before an average figure is chosen. For example the WRAC subcommittee is concerned that rainfall data and irrigation data is not available for each year that Laetitia has been in wine production, and that water use and local rainfall data cannot be substantiated. This would seem unusual for a weather-dependent agricultural operation.

Without greater substantiation the subcommittee considers that, relative to 2011, precipitation is likely to be lower and irrigation requirements are likely to be higher.

COMMENTS CONCERNING ESTIMATIONS OF RESIDENTIAL WATER DEMAND

V.P.-36 In the RRDEIR Geosyntec states that they concur with applicant's estimate of 0.44 afy/lot, noting that it is higher than the standardized rate of 0.36 afy/lot. The supporting arguments are given in an April 2013 document contained in Appendix H of the RRDEIR. That document supports the duty factor by incorporating assumptions utilized in the Department of Water Resources Model Water Efficiency Ordinance and the 2011 California Green Buildings Standards Code (CGBSC). However the CGBSC cited homes are described as 3 bedroom with 4 occupants without reference as to size. Laetitia is proposing 3000 to 5000 square foot homes on 1 acre lots. For comparison Nipomo CSD's 2010 Urban Water Management Plan prepared by WSC [Water Systems Consulting, Inc.] has recorded actual usages as Multi Family 0.28AFY; Duplexes/Secondary 0.28AFY; Parcel less than 12,768 sq. ft. 0.40AFY; Parcel between 12,769 and 25,536 sq. ft. 0.68AFY; Parcel greater than 25,536 sq. ft. 0.82AFY.

While the 0.36 afy/lot might be defended on the basis of severely restricted landscape irrigation and engineered water-saving devices that would be policed through CC&Rs, such CC&Rs may either be changed in the future or violations of the CC&Rs ignored. Regardless of residence fixture flow rates at the time of first occupancy, personal comfort levels and habits will frequently cause residents to modify flow in devices like showers.

For these reasons, the WRAC subcommittee considers the 0.36 afy/lot to be marginally credible but probably underestimating likely future use.

COMMENTS CONCERNING AQUIFER AND WELL TESTING

(1) GENERAL COMMENTS

During the evolution of the RRDEIR there have been a number of documents that have questioned both the methodology used in aquifer and well testing, and the interpretation of the results. These include the original tests by Cleath and Associates, peer review of the tests by Fugro West, and in the RRDEIR analysis by Geosyntec. The WRAC subcommittee also received commentary on the Geosyntec studies by Cleath and Harris. The subcommittee also realizes that the conflicts between experts, which is not uncommon in the CEQA process, will be an obstruction to making an optimal decision that maximizes development without threatening long term sustainability of the water supply and wildlife. For this reason, project approvals should error on the side of caution.

(2) VALIDITY OF PUMP TEST RESULTS IN PREDICTING LONG TERM SUSTAINABLE YIELD

The RRDEIR's Appendix H "Review of Well Testing and Sustainable Yield Assessment" has a section starting on p. 21 giving "Conclusions and Recommendations". The following quotes are pertinent:

"The projections of downward water level trends exhibited during testing and the unknown time to possibly achieve equilibrium pumping conditions underscores that time frame is an important issue with respect to long-term viability of the wells to meet the proposed project demands."

and

"With continued pumping at Phase 3 rates, an expanding cone of depression of groundwater elevation will result in capture of more groundwater and an equilibrium condition accompanied by stable water levels may be attained. However, equilibrium groundwater flow conditions may not occur for decades or longer .....) Based on the water level records during Phase 3 pumping, if the linear trend in decreasing groundwater elevations continues at the rates observed during the Phase 3 testing, the water levels in the wells will likely drop below the top of the well screens-- within months in Wells 10 and 14, and within a few years in Well 15".

The RRDEIR states on V.P.-30 that:

"Based on the available data, groundwater production needed for the proposed project is feasible, but will result in long-term average declines in groundwater levels. Additional depletion of groundwater storage associated with each proposed domestic well appears to be necessary to sustain long-term water production to meet project demands. With continued pumping, equilibrium water levels may be attained in time (Geosyntec 2011, 2013)."

Neither Geosyntec nor the WRAC subcommittee consider that this project meets the full definition of sustainability, but Geosyntec indicates that the four wells in the domestic loop would be able to produce 62.4 afy or 38.7 gpm. (V.P.-32) and satisfy project demand. However the degree to which this well production removes water from storage, or further reduces subsurface recharge to Los Berros Creek have not been quantitatively

established. Geosyntec defends this production level even after consideration of the following:

"The estimates of viable long-term groundwater production rates reported herein are based on evaluation of water levels recorded in four wells for the period from October 2009 to March 2011, which included several months of pumping. However, we caution that rainfall during the testing program was 138 percent of average, and also that long term yields of water wells producing from bedrock aquifers, which may have linear fracture systems, commonly are substantially less than short-term yields."

(3) ADDED COMMENTS BY WRAC SUBCOMMITTEE REGARDING SUSTAINABILITY

Several people have expressed concern that production of water from fractured aquifers can be highly productive until the fractures are drained, so that water production will drop quickly and in some cases not recover. Geosyntec notes the difference between fractured aquifers and homogenous aquifers, but sudden production loss was not discussed.

The long term sustainability of groundwater-dependent projects would depend on the balance between withdrawals and recharge. Given the use of 17 inches as an average annual precipitation, and the total project acreage of 1,910 acres, the 1.42 ft of precipitation yields 2,712 AFY on project lands.

The project water demands are stated (p.VP-37) as a wide range between a very low 277.75 AFY to highs of both 494 FY or 938 AFY based on different conditions and using Master Water Plan numbers. The higher numbers are presented in a letter submitted to Shawna Scott from Gordon Thrupp (Appendix H2) by ESA. This would require capture of between 10% to over 30% of the total rainfall as groundwater recharge, both of which are very high numbers compared to the hydrologic literature. For example one global study gives a recharge of 0.1 to 5% of rainfall (Bridget R. Scanlon, et. al., 2006, Global synthesis of groundwater recharge in semiarid and arid regions, Hydrological Processes v. 20 p. 3335-3370). This is due to both evapotranspiration and runoff taking the majority of the rainfall. Given a very optimistic capture of 5% of precipitation recharging groundwater, it would only provide about half of the lowest water demand (277.75 AFY) of this project. The other half would either have to be taken from other nearby properties or taken from incoming flows of Los Berros Creek.

There is unfortunately no restriction of the amount of water that an individual land owner can extract, which leads to the accumulation of individual parcel overdrafts.

COMMENTS ON V.P.-42 AND WAT IMPACT 1- ISSUES CONCERNING MANAGEMENT STRUCTURE

(1) CREATION A MUTUAL WATER COMPANY AND A HOMEOWNERS ASSOCIATION TO IMPLEMENT PROJECT MITIGATIONS THROUGH A MASTER WATER PLAN

On V.P. 42 Mitigation WAT/mm-1 in the RRDEIR requires a Master Water Plan be prepared that provides "*guidelines for residents covering water conservation techniques, and lists of ornamental drought-tolerant plants that would do well in the native soils, etc.). The program shall address all consumer-controlled water uses...*". The MWP would define limitations on exterior irrigation, a drought management plan, a monitoring program to police pumping periods and production volumes, and be enforced by the Homeowners Association (HA) and Mutual Water Company (MWC).

On V.P. 44-45 WAT/mm-1 would make demonstration of compliance a condition before the project advanced to the next phase of the phased development. The other mitigations in this section (WAT/mm-2 through WAT/mm-7) recommend methods by which water use could be minimized,

The WRAC Subcommittee concurs that WAT/mm-1 provides for application of project mitigations through to the completion of Phase 3. However, the missing part of this discussion is the long term policing of water use after the development is built out at the end of Phase 3. There are substantial issues with the creation of an MWC to manage water production and use, and issues concerning the separation or space between, an MWC and an HA. While California law requires that they be separate corporate entities, there is no restriction regarding common membership for their boards. There is some possibility that highly restrictive CC&Rs could be altered by the HA by a vote of the HA after Phase 3 is completed, after which there might be no external policing of water use. The subcommittee therefore would like to see the FEIR define the legal framework that would protect mitigations from degradation upon completion of Phase 3.

(2) PROBLEMS ASSOCIATED WITH SEPARATION OF DOMESTIC PRODUCTION MANAGEMENT AND AGRICULTURAL PRODUCTION MANAGEMENT

Once vineyard water operations are divorced from those of the area covered by the Homeowners Association (HA), there will be nothing to prevent the current ability of the vineyard to pump at any desired level, as the Mutual Water Company (MWC) would have a separate jurisdiction on a different subset of water wells. Any MWC problems concerning well production and safe yield could not be addressed by changing vineyard operations.

V.P.-23 discusses groundwater rights, noting the rights of overlying landowners to withdraw water for beneficial use, which would imply parallel rights to the MWC and to Laetitia. The RRDEIR also notes the "reasonable use" provision. It is possible that side-by-side operations might result in litigation, each blaming the other for damage to their systems from over-pumping.

The subcommittee would draw attention to California Water Code 106 that states:
106. It is hereby declared to be the established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is for

irrigation. The FEIR should address this code section in the light of possible conflicts between vineyard and domestic usage.

The WRAC subcommittee recommends a better analysis of both the depth of separation and the allowable provision for mutual aid that would be possible if a MWC is created.

Having addressed the WRAC subcommittee's concerns regarding divorcing a Mutual Water Company from Laetitia's agricultural concern, the concern is magnified by the terms of WAT/mm-1. This concerns the creation of a Master Water Plan that addresses "*all consumer-controlled water uses*" and "*shall be administered by the Mutual Water Company and enforced by the Homeowners Association*". It places well-specific limitations on pumping from wells 10, 11, 14 and 15 and requires a Drought Management Plan with specific triggers for action. While this appears perfectly sensible for a stand-alone development, in this case there is no mention of any involvement of the agricultural operations. There is no provision for diverting agricultural water toward residences, nor any suggested change in agricultural operations. This reinforces the fact the water supply for the Mutual Water Company may at risk from agricultural operations over which they have no control.

For the above reasons the WRAC subcommittee recommends that WAT/mm-1 not be implemented until the specific issues of relations with Laetitia and post- Phase 3 management issues are addressed.

COMMENTS ON MITIGATIONS WAT/MM-2 THROUGH WAT/MM-6

The WRAC subcommittee considers these mitigations that minimize water use to be sensible, providing that the imposed conditions can be satisfactorily policed. For example WAT/mm-5 requires installation of low flow showerheads, but how would this be policed after a home is occupied? Although removing water conservation measures inside the home would violate County codes and ordinances, the actions themselves would be impossible to police.

COMMENTS ON V.P. -47 WAT IMPACT 2- CONCERNING RUNOFF AND AQUIFER RECHARGE

Table V.P.-7 shows that the Net Peak Runoff Rate after development will be increased by 4.4% for the 10-year storm, 3.8% for the 25-year storm and 2.8% for the 100-year storm. In response to the County regulation that there should be no increase in peak flow, a number of flow-reducing mitigations must be implemented. The WRAC Subcommittee believes that County regulation must be upheld.

The WRAC subcommittee supports the water recharge options listed in WAT/mm-10. However on V.P-48 it states that "*No onsite water stormwater detention basins are proposed*." The WRAC subcommittee would support the development of retention basins

for both removal of sediment, the greater delay of peak discharge, and the possibility that basins can recharge bedrock aquifers and the Los Berros Creek alluvial prism.

The subcommittee does not concur with the RREIR that flood risks are reduced to a less than significant level by mitigations WAT/mm-9 and WAT/mm-10 as peak flow will still be increased and downstream flooding is a current problem. The mitigations in the RRDEIR will be helpful for controlling small events, but will be of little use in large events where retention basins would have the greatest effect.

The WRAC committee also notes that Coastal San Luis Resource Conservation District, in comments on RRM's Hydrology and Hydraulic Report for the original EIR, was concerned that the report had not addressed flooding issues on Arroyo Grande Creek. As the RRDEIR still does not directly address the issue, the FEIR should examine the impacts of the project on both Los Berros and Arroyo Grande Creeks.

SMALL EDITORIAL ISSUES

Appendix H Table A-2

Appendix H Table A-2 appears to have the spreadsheet headers misplaced. It appears that projected vineyard demand for the South Coast varies from 0.7 to 1.2 AF/A/YR (SLO County)

Geological Cross Section A-A' Figure V.P.-4

There is a small error in the Key to the Geological Cross Section, in which the unit 'Tmmb' is stated to be Obispo Formation rather that Monterey Formation